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Essex.

p. 7.









*Pl. 1.*







THE  
HISTORY AND DESCRIPTION  
OF THE  
WALLS OF COLCHESTER,

(COLONIA CAMULODUNUM,)

BY

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Archæological Society, &c.*



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[FROM THE TRANSACTIONS OF THE ESSEX ARCHÆOLOGICAL SOCIETY.]

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M.DCCC.LVI.



*Pl. 1.*



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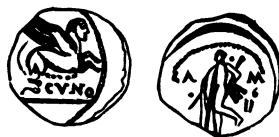
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# THE HISTORY AND DESCRIPTION OF THE WALLS OF COLCHESTER.

BY DR. P. M. DUNCAN.



“ Our subjects, Sir,  
Will not endure his yoke ; and, for ourself  
To show less sovereignty than they, must needs  
Appear unkinglike.”

*Cymbeline*, Act iii., Scene v.

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CUNOBELIN, the Cymbelin of the heroic British traditions, does not exist in the verse of the bard alone, but is presented to the notice of the student of art, as a patron of those who earned a lasting reputation by inscribing classical figures upon the rude coinage of certain nations, deemed especially barbarian by the Romans.

A right regal patron of die-cutters was Cunobelin the Trinobantine ; his coinage in pure gold and in bronze, so familiar to the collectors at Colchester, has ever excited admiration, and will ever be a strong and convincing evidence in favour of the view which regards the commonly-received notions of British civilization as erroneous.

Year after year, both within and without the walls of Colchester, coins of Cunobelin are turned up from below the remains of the Roman occupation ; their abundance was asserted nearly a century ago, and even in these days of utilitarianism, the neat inscription upon the solid-looking money of the British King, is carefully noted and preserved.

But, occasionally, British coins are dug up in company with the flint arrow-head and rude fictile ware, denoting a remoter period of art than that of the time of Cunobelin. These rude pieces of stamped gold, bronze, and tin, marked with the effigies of frantic-looking horses and chariots, are recognized, by the numismatist, as attempts at imitation of the Gallic idea of the *Stater* introduced by the Phocæan colony at Marseilles. This rude money, in all probability, puzzled the youthful Cunobelin, quite as much as it did the modern antiquary; and when peace had followed the invasion of Cæsar, and had been consolidated by the wisdom of this greatest British King, the royal wish for a better coinage, was stimulated by the increasing commerce with Rome.

Artists familiar with the Greek and Roman types of coins were, therefore, patronized, and the curious half-classical, half-Keltic series inscribed with the name of Cunobelin, and that of his city, Camulodunum, resulted. The name, and occasionally the features, of the British monarch, found themselves in strange company; and double-headed Januses, Sphinxes of all kinds, together with other Roman and Grecian outlines, must have excited the wonder of those who benefited by their circulation.

Although the artists had their fancies and crotchets, and executed them, still the King had his, and he retained certain types, which are, certainly, not classical—but, nevertheless, are very elegant; thus, the unharnessed horse, the ear of corn, and the naked spear-in-hand figure of the God of War, were engraven by the die-cutters. Cunobelin's name is not invariably placed in full, but Cuno or Cunob are frequently found upon his coins, and there is another abbreviation which is as interesting as it is important. The letters C.A.M. are frequently found, and the whole name, Camuloduno, is upon more than one coin. The classical scholar is immediately reminded of the Colonia Camulodunum, and of the Royal City of Camulodunum, conquered by Claudius in his Trinobantine war. The Boadicean war, the assault and destruction of the colony at Camulodunum, and the Roman victory, pass across the memory of the historical student, and, leaving the memory of the first rude coiners of the great Cunobelin, of Claudius, and of the founders of the Colonia far behind, the mind wanders past the age of

persecution and struggling Christianity, to the date when the British Church sent its representatives to Arles and Sardica, and when the Bishop of Colonia Camulodunum signed his name protesting against the Donatists.

The Antiquary recognizes, in the modern Colchester, the ancient Colonia Camulodunum, and revels in the inexhaustible stores of Roman remains, with which the city teems; he traces the ruined villa, the great roads, and the remains of camps; the cinerary urns, in long and dismal rows, are noted down, the inscribed slab and stone are before him, and the thousands of fractured pieces of fictile ware, and the large and solid tiles, give evidence of the art and industry of the local clay workers. The huge walls of the town, the remains of the gates, the mosaic and common tessellated pavements, and the endless variety of coins, have still to be described; and it will be found that, if the student of Archæology will submit to study details, and to leave theory for a future period, no better arena for his exertions can be found, than that of Colchester.



Camulodunum fell beneath the attack of an Emperor—no small honour—and Claudius made the most of his conquest. The elegant historian, who devoted part of his annals to British affairs, must be followed to discover the effects of Roman pride and British despair, and to learn the fate of the Colonia. Boadicea stands forth on the stage of history, and the eastern tribes of Britain are ripe for rebellion.

Early in the struggle, the Iceni—the inhabitants of what is now the district comprised by Suffolk, Huntingdon, Cambridge, and Norfolk—formed a league, and attacked the Proprætor, Publius Ostorius. They were defeated, and the Roman General turned his attention to the West of Britain. Camulodunum, the spoil of Claudius, was the *point d'appui* of Ostorius in the east; by fortifying it, or by placing a large body of troops there, he could keep the Iceni in check, and move himself to the scene of his intended campaign.



A colony, supported by a strong body of veterans, was stationed, therefore, on the lands conquered from the enemy. Tacitus remarks that the garrison would be able to overawe the insurgents, and give to the Allied States a specimen of law and civil polity.

Ostorius died under fatigue and anxiety, and Aulus Didius, Veranius and Suetonius succeeded, in turn, to the command in Britain; under the last the revolt of Boadicea occurred, and the critical reader may observe, in the description given by Tacitus, in his 14th book of the Annals, that Camulodunum was not, as yet, surrounded by a wall. It may be quoted as follows:—"What chiefly fired the indignation of the Iceni and Trinobantes, was the conduct of the veterans, lately placed as a colony, at Camulodunum. These men treated the Britons with cruelty and oppression; they drove the natives from their habitations; and, calling them by the opprobrious names of slaves and captives, added insult to their tyranny. In these acts of oppression, the veterans were supported by the common soldiers, a set of men, by their habits of life, trained to licentiousness, and, in their turn, expecting to reap the advantages of a veteran. The temple built in honour of Claudius, was another cause of discontent. In the eyes of the Britons, it seemed the citadel of eternal slavery. The priests appointed to officiate at the altars, with a pretended zeal for religion, devoured the whole substance of the country. To over-run a colony which lay quite naked and exposed, without a single fortification to defend it, did not appear to the incensed and angry Britons, an enterprise that threatened either danger or difficulty." The fact was, the Roman Generals attended to improvements of taste and elegance, but neglected the useful. They embellished the province, and took no care to defend it. So says Tacitus. We all know what followed. The Romans shut themselves up in the Temple of Claudius, which was taken by storm, after a siege of two days, and the ruin of the colony was complete. Eight hundred and sixty years after the above-mentioned occurrences, we find, in the Saxon Chronicle, that Eadward the elder, son of Alfred the Great, erected two fortresses at Hertford, and one at Witham, and that the Danes, who had held Essex for 30 years, suffering a defeat at Wigmore, were, in their turn, besieged by the Saxons of Essex, Kent,

and Surry, in Colchester. It is written, "These now assembled together and invested Colchester, which they took, and slew all the Danes whom they found in the place." Subsequently it states, "With a West Saxon army he (the King) proceeded to Colchester, in which he placed a strong garrison, and the walls of which he caused to be repaired." Another authority says, "Touecestra muro lapideo cingitur. . . . Ad Coleceastram abiit et murum illius redintegrait." The walls of Colchester were, therefore, standing before the time of the son of Alfred. Colchester is not mentioned in the reigns of Ethelred and Alfred, but it is to be observed that the Danish excursions did not, until a late period, affect North Essex. Their destructive march, was from East Anglia, from Norfolk and Suffolk to the Thames, about Reading; it would appear that there was a something in the way of their progress through Essex, probably a garrison and fortification at Colchester and London. As the attacks of the Danish jarls became more frequent, better organized, and evidently upon a concerted plan, the district around Colchester submitted to them, and the town fell into their hands. There is no evidence to prove that a struggle took place at Colchester, at the time of the Norman Conquest; and Domesday, although it informs us of the existence of Churches, priests, Halls, and Royal property in the town, throws no light upon the subject of the Wall.

After the Norman Conquest, the Walls were kept in repair by the authorities of the town, and in the reign of Edward III., several persons were indicted for beating off, or meddling with, the parapet stones; also for digging pits near to the foundation.\* Morant observes—"But more care seems to have been taken to repair and keep it up in the time of King Richard II., than in any other reign; for notice is taken in the oath book (§ Ric. II.) that the bailiffs and commonalty were daily repairing the stone Walls of the town, where they most wanted.† The cost of repairing so large a structure, of keeping up the gates, fosse, and approaches, appears to have fallen heavily upon the townspeople, especially as they were otherwise heavily

\* See *Morant*, Book i., p. 6. Rot. cur. 25 Edward III., membr. vel rot. 6.

† Ballivi et communitas de novo faciunt de die in diem muros lapideos dicte ville reparavi, prout maxime indiget. p. 55, vol. 2.

taxed; to relieve them, the King did, of his especial grace and favour, exempt the burgesses of Colchester from the charge of sending representatives to Parliament for three years, and afterwards for five years, "upon account of the great expences they were at, in repairing their Wall, with lime and stone, for the safety of the town against all invaders."\*

King Richard, in the sixteenth year of his reign, granted his Royal licence to Ralph Algar, Stephen Baron and Henry Bosse, giving them the power to grant and assign two messuages, four acres of land, and the advowson of the Hospital of the Holy Cross, to the bailiffs and commonalty, and their successors, as a help towards mending and repairing the Walls of the town.†

The Hospital of the Holy Cross was without the Walls, and is known as the "Crouched Friars." It has given the name of "Crouch" to the present entrance of the London road, and here and there its ruined mullions and tracery are seen occupying ignoble positions. Mixed up as it is with the finance of the Walls, some part of its singular history may as well be mentioned. Morant, as usual, gives everything that can be found upon the subject. The house was a convent for crossed (or, as the old English word is,) for Crouched Friars, of the order of St. Augustin, who were bound to celebrate Divine service in the Chapel here; and also an Hospital, for the reception of poor people. Its founder was William de Lanvallei, lord of the manor of Stanway; who also gave thereto pannage for fattening twelve hogs, yearly, in his wood of Shrub and Wildenhey, and pasture for two cows. The advowson of the Hospital belonged to his successors; and when King Richard was looking about for somebody to rob, in order to please the people of Colchester, it was found that the manor of Stanway, and the advowson, was held by Robert Kinnett, of Walter Lord Fitzwalter, by the service of a pair of gilt spurs, or sixpence. The damage done to the Hospital revenues by the King's grant, was, however, an eyecore to the good people of Colchester, for the poor were neglected, and Divine service could not be performed; and, by representations, an indulgence was granted in 1401-2, to raise money.—This deed relieves the sinners of those days, for various periods, for certain considerations.‡

The revenues, however, were retained by the authorities, for repairing the Wall, until the reign of Henry VII., when some interest was made for the Hospital; and the bailiffs and commonalty restored the two mes-

\* Rot. Pa. 6 Richard II., p. 2, m. 26; and others in 12 and 17 Richard.

† Morant in a note p. 6, Book i., Hist. of Col., gives the record.

‡ Morant—Appendix, No. xv.

suages, and four acres of land. But both Henry IV., and Henry V., exempted the townspeople from the expense of sending members to Parliament.

The chamberlain of the town was usually instructed to attend to the repairs of the Wall.

In 1648, Colchester was occupied by a Royalist force, and besieged by Fairfax; the Walls were nearly destroyed, the Churches, the splendid Priory and its Church injured, and many score of private houses burnt. In the description of the siege, repeated mention is made of the Walls. At the very commencement of the siege, the Royalists endeavoured to strengthen the Walls of the town, fortifying those places which were most defenceless, and casting up ramparts and counterscarps, as a great part of the town required; the town being in all places very weak: neither had it any more than one flanker about it, and that very bad too, which was called the Old Fort or Balkon.\*

Again, we read that, one afternoon, the besiegers planted four great pieces of battering cannon, and fired 140 great shot against the Town Wall, but did very little hurt; only beat off the tops of two old towers upon it, and killed three men. The batteries which worked against the south-eastern and south-western angles of the Wall, and against the middle of the northern curtain, did a great deal of mischief, and the great breaches now existing in those places, are to be traced to the time of the siege.

Fairfax, on the capitulation of the town, ordered the Walls to be demolished, but it required harder blows than those of his soldiers, to destroy what had resisted time for more than fifteen centuries. He ordered as follows:—

“I desire, Mr. Mair of Colchester, to give present order for the bringing in and delivering unto Thomas Mathew, Captain of the pioneers, 500 spades, pickaxes, shovells and hatchets, for the demolishing of the workes and part of the Walls about the town of Colchester.—Given under my hand, the 1st September, 1648.

“FAIRFAX.”

They, doubtlessly, overthrew much of the parapet of the Wall, but soon gave up the attempt in despair. No provision was made for the restoration of the Wall, and it has ever since been either kept in repair, by those upon whose property it has impinged, or has been allowed to go to ruin,

\* *Morant*, p. 61, b. i.

or has been destroyed. Some years ago, a great mass of the Western Wall fell, and blocked up the road on the Balkan Hill; so strong did it hold together, that careful blasting alone, enabled the engineers to remove it.

Of the gates, but one is in existence, and that has but one arch remaining, but it is a most interesting specimen. Morant does not notice it, but may be quoted as follows, concerning the others:—\*

“In these Walls there are four gates—1. Head-gate, called in records Heved, or Haved-gate, and in Latin Porta Capitalis, now taken down; 2. North-gate; 3. East-gate; and 4. St. Botolph’s-gate. East-gate fell down in 1651. There are three posterns—1. In St. Mary’s churchyard; 2. Schere-gate, or South postern; 3. Rye or River-gate, taken down in 1659.”†

#### DATE OF THE ERECTION OF THE WALL.

No inscription has ever been found, either in Colchester or upon the Wall, indicating the Emperor, legions, and cohorts, by whom this grand memorial of Roman design and perseverance was erected; yet no city contains such evidence of continuous Roman occupation.

The coins found in the cemeteries outside the West Wall, belong to the Emperors prior to Antoninus Pius, and those of Vespasian, Claudius and Trajan abound; it has been carefully noticed, by the owner of the property where the urn burial was formerly conducted, that there are no coins of the lower empire in the urns, but that when coins are found, they are to be attributed to the early period of the Roman Empire.

The two hundred coins discovered from time to time at the Hospital, on a space of less than five acres, belong, for the most part, to the Emperors before Severus, and the Vespasian, Trajan and Antonine types are very good; the coins of the Constantine family are plentiful, but not in excess; and those of Carausius and Allectus are wanting.

\* Mr. Roach Smith and the Rev. C. H. Hartshorne have noticed the gate not described by Morant, and have drawn portions of it. A full description and measurements will be found in the last part of this paper.

† *Morant*, p. 7. It is much to be regretted that Morant gives so slight a description of these gates and of the Wall. I learn, from one of the oldest inhabitants, that the piers of the arches of the East-gate indicated a central carriage road and a foot-way on each side.

Between the Hospital and the West Lodge—the great cemetery—the ground has been frequently disturbed, and the Grammar School excavations produced but few coins; of these, those of Carausius abound, and the Constantine series is in excess.

By the side of the Balkan Hill, the coins found, have been those of the British series, also Consular, Family, Triumvir, and of the whole empire; and I have in my possession a denarius of Vespasian, with the Judæa Capta on the reverse, and a second bronze of the same Emperor, also with the Judæa Capta type. These were found, one immediately within the Wall, in the Rectory grounds at St. Mary-at-the-Walls, and the other in the grounds of the Union-house, without the Wall. All these refer to the ground before the West Wall.

Facing the South Wall, and at the bottom of the valley which formed the artificial fosse to the west of the gate of St. Botolph, there is a large brewery; in digging its foundations (which certainly did not cover three acres), no less than 168 Roman coins, several Norman, and a few Stuart were found. I had some difficulty in arranging the Roman series, on account of their corroded condition, but the following is a list of them:—

Augustus	-	-	-	1	Carausius	-	-	-	3
Claudius	-	-	-	1	Constantius	-	-	-	27
Vespasian	-	-	-	2	Constantinus	-	-	-	27
Domitian	-	-	-	1	Constans	-	-	-	10
Sabina	-	-	-	2	Constantius II.	-	-	-	1
Faustina	-	-	-	1	Constantinopolis	-	-	-	5
Julia Maesa	-	-	-	1	Urbs Roma	-	-	-	7
Gallienus	-	-	-	6	Flavia Theodora	-	-	-	7
Postumus	-	-	-	3	Valentinianus	-	-	-	5
Victorinus	-	-	-	3	Valens	-	-	-	7
Tetricus—elder	-	-	-	34	Doubtful and illegible	-	-	-	12
Tetricus—junior	-	-	-	4					
Claudius Gothicus	-	-	-	7					
Probus	-	-	-	1					

Total bronze coins 168\*

The lower empire coins predominate here. In making excavations in the track of a cloaca, which ran underneath

\* John Bawtree, Esq., M.A., of Abberton, presented these to the Society.

a ruined gateway in the North Wall, and which was absolutely filled with Roman antiquities, the following bronze coins were found:—

Domitian . . . . 1	Constantinus . . . . 2
Trajan . . . . 3	Constans . . . . 1
Marc-Aurelius . . . . 1	Constantius . . . . 2
Severus . . . . 1	Constantinus, jun. . . . 1
Probus . . . . 1	Valens . . . . 1
Claudius Gothicus . . . . 3	Valentinianus . . . . 1
Tetricus . . . . 1	Doubtful . . . . 1
Victorinus . . . . 2	—
Carausius . . . . 3	Total No. of coins - 25

Morant gives his series of coins in the *History of Colchester*, and refers to the collection of Charles Grey. In both of these there is a surplus of coins of the earlier Emperors, and in my collection of some 43 denarii, found in Colchester, during the last few years, there are—

Family and Triumvir . . . . 5	Verus . . . . 1
Augustus . . . . 2	Sep. Severus . . . . 2
Vitellius . . . . 1	Geta . . . . 1
Vespasian . . . . 1	Julia Mæcia . . . . 1
Domitian . . . . 1	Alex Severus . . . . 4
Trajan . . . . 4	Philippus . . . . 1
Hadrian . . . . 2	Claudius II. . . . 1
Julia . . . . 3	Constantinus . . . . 1
Antoninus P . . . . 6	—
Faustina . . . . 4	Total . . . . 43
Commodus . . . . 2	

The bronze coins collected by me, range throughout the whole series, and those of the types of Claudius I., Trajan and Vespasian are very numerous.

The localities from which these several collections of coins came, are close to, underneath, and a little removed from the Walls; and it will be noticed that very little can be gleaned from them, in evidence of the date of the erection of the Walls of Colchester; but they prove that the Romans occupied the town, during the whole of their stay in Britain, and that there was no access of importance to Colchester, during the reigns of Carausius and Constantinus Magnus.

Morant notices the following fact:—That, just within the gate of St. Botolph, a cinerary urn was discovered, containing bones and a coin of Domitian; and here and there, about the area within the Walls, urns, containing burned bones, have been found. I possess a glass lachrymatory (ungentarium), which was found with other antiquities, consisting of fragments of urns, mortaria, fragments of Samian ware, and tops of amphoræ, upon a tessellated pavement in the Botanic Garden; and, under this pavement, which consisted of a layer of concrete and superimposed tesserae, was a coin of Diva Faustina, and a classical head in terra cotta. Now, the laws concerning extramural interments, were strenuously insisted upon in the cleanly Roman times, and it has been argued that, because the sepulchral urn has been found within the Walls of Colchester, these could not have been erected, until a date later than that of the coin contained in the urn—not until after the time of Domitian, A.D. 96.

The ruin of the colony at Camulodunum, by Boadicea, took place in A.D. 62, and the defeat of the Britons succeeded their victory with little delay. The next ten years were not marked by any Roman conquest in Britain, and it is evident, from what followed, that the invaders had hard work to hold their own; however, at the expiration of that time, Petilius is found fighting the Brigantes, a tribe to the north of the Iceni and Trinobantes. It may be inferred, then, that at the date A.D. 73, the subjection of the tribes south of the Brigantes, was complete, and that, when the Brigantes were subdued, and Agricola had carried the eagles to the Grampians, the pacification of the tribes, around the spot where the Claudian colony once flourished, was perfected.

By the end of the reign of Hadrian, A.D. 138, the construction of the Wall in the north of Britain, had removed the necessity for fortifying cities south of it, and there is no monument, no inscription of that inscription-loving Emperor, to denote, that he or his legions built the Wall at Colchester: and it is not probable that, had he had a hand in it, the commemorative tablets, so common in the Great Wall in North Britain, would have been neglected.

The return of the Romans to the colony, was, of course, followed by its fortification; they had been caught once, and



were not likely to trust themselves, a second time, to the tender mercies of the Briton ; and it must be admitted, that there are great probabilities of their immediate return after the Boadicean war. The old site was selected, on account of its commanding military position, and the rampart of earth, subsequently to be faced by a wall and surmounted by a parapet, was commenced. The lines of the intended fortification were traced out, and the wrecks of the former habitations were covered, as the rampart grew, or built in amongst the rubble work of the Wall, in course of time.\*

But the Wall was not built in a day, or a year, for, from the peculiar geologic formation of the district, no stone offered itself; the clay cliffs by the sea-side had to be dug into, to discover and obtain the so-called septaria, of which the bulk of the Wall was to be formed; and, when found, they had to be transported to the town, and cut into long slabs, and faced by the hammer. The tiles or bricks, which were to bind the septaria in courses, had to be made, and the dense specific gravity, close texture, and size of the Roman tiles of the Wall, were only to be obtained by careful moulding and burning; according to the authorities of those days, a tile took five years to make. Moreover, the rubble work, which fills up the centre of the Wall, had to be collected, and the remains of former buildings broken up, to swell its amount. The dense and hard mortar, made of lime, sand, pebble, brick-dust, and pieces of tile, in varying proportions, required long and careful manufacture, and the chalk district of Sudbury and Grays, must have been dug into, and the tile mill must have been well worked. Many years must have elapsed, ere the Wall was perfected, but one uniform plan was kept in view; and it may be asserted with great reason, that the native Briton slaved under the taskmastership of the Roman veteran and colonist, in the formation of the bulwark, and sighed at the hapless prospect, when legion after legion poured northwards to the Caledonian war.

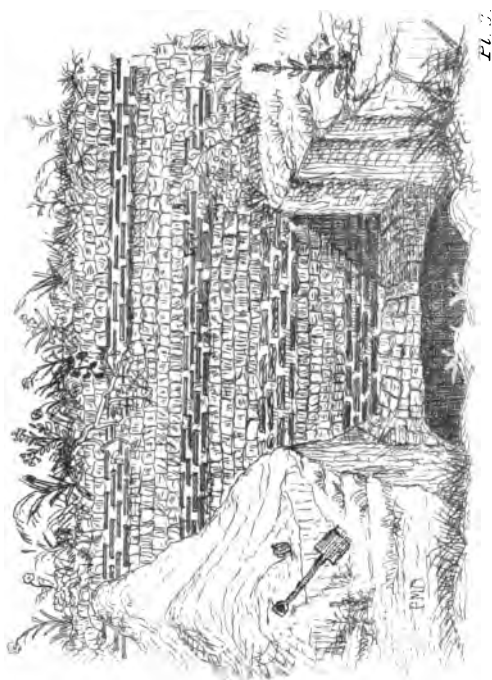
#### PRESENT CONDITION OF THE WALL.

In some places, houses have been built in the town ditch, and the Wall has been made to serve as the back wall of

\* A ruined residence, of Roman plan and work, was found to have been built over by the South Wall.







Pl. 3.



these structures; in others, it has been so incorporated with ruinous tenements, that it is only to be discovered with difficulty; but, for the most part, the Wall has suffered very little from the attempts of those who ought to know better, than to destroy an interesting relic of the olden time. Except in one or two places, the foundation of the Wall can be traced, where the superstructure is wanting. In many parts, the Wall is well preserved, and looks, even now, serviceable and neat; but in very exposed situations, its ruinous condition is highly picturesque, the jagged moss and lichen-covered stones, cropping out of the earth, more like primary rock, than anything produced by the hand of man. This is particularly the case in the North Wall; and the walk at its base, with the river in view, is really very pretty. The dense tiles or bricks, in courses of four, resist the disintegrating effects of frost, heat, and moisture, much better than the septaria; consequently, in many places the tiles project a foot or more, beyond the level of the stone work, which is deeply eroded, and the seat of lichens almost peculiar to it, of many interesting plants, and of not a few insects and mollusca, well worthy of notice. On the Balkan Hill there are some remains of the facing of the outside of the Wall—the septaria are found cut with a perfectly clean face, which is exactly on a level with the edge of the course of tile. Such was the original condition of the whole of the Wall, and when a large portion of the inside was exposed, by the removal of part of the rampart of earth along the North Wall, the same carefully-executed style of masonry was discovered.—(*See plate 2.*)

The level of the foundation of the Walls, is not the same throughout, and that of the South Wall is higher than that of the North, the East Wall suffering an incline in its level to the North and the West Wall, a very precipitous descent in the same direction. This occurs, from the ground upon which the town is built, rising from the river to form a table land, which is bounded on the South by a descent, a valley, and a corresponding ascent. This valley is more or less artificial, but it formed an important fosse to the defences in the olden time; but when the monastic establishments crowded the land, one was built in the valley—the Priory of St. Botolph, and another crowned the opposite height—the Abbey of St. John. The level of

the river is but slightly above that of the ocean, now the tide flows to East Bridge; and formerly (when not restricted by lock and mill) it must have deluged the meadows up the valley of the Colne. The river bottom, and all on a level with it, and some hundreds of feet below, is composed of dark blue black clay—the London clay. Over it, except on the river and on the meadow, is piled a mass of gravel and sand, to form the hill of Colchester; on this is a well-drained mould. It follows, that the whole of the foundation of the Wall, except that portion which is on the meadows, just above high-water level, is built on sand. The foundation, where I had an opportunity of examining it—at the spot in the North Wall, where the Grey Friars and Holly-tree properties adjoin—was very massive and broad. Composed of flints, septaria, and a dense mortar, harder, even now, than the stony part, it was laid upon a flat surface of sand, well rammed and beaten. First upon this sand some mortar was spread, then large flints and septaria, then more mortar was added, and about two feet and a half of this irregular work was perfected.

The first course of tiles was laid upon the foundation, and every attention paid to its being perfectly level. The thickness of the Wall is not equal to that of the foundation, by three feet, and the dense foundation, or base, projects some eighteen inches without and within the Walls. Thus, at the place where these observations were made, where I, with many others, walked beneath the Wall, having its ragged base for my archway, the Wall was eight feet thick, and its base eleven feet. There is no slope between the Wall and its base; the first course of tiles is placed eighteen inches within the boundary of the work below it, and then four rows of septaria are superimposed.

The lowest course of tile goes through the whole breadth of the Wall, but the second, and all the others, are only superficial. There are some exceptions to this rule.

Throughout the whole length of the Walls, the courses of tile run continuously, sometimes being laid perfectly level, at other places following the incline of the surface; the lowest course is nearly always invisible, being covered with earth; but the second, third, fourth, and sometimes fifth, run like parallel zones, each being separated from the one above and below, by rows of septaria. Looking at the

face of the Wall, in places where its condition is still good, above the soil at the base, four rows of squarish-faced septaria are seen, either placed one immediately over the other, or, most usually, so as to place the centre of the horizontal edge of the upper stone, over the vertical edge of the two below it. Then is a course of long but narrow tiles, consisting of four alternately superimposed rows, separated by thick mortar, in which, for the most part, crumbled tile is found.

On these, four more rows of septaria, and then, again, a course of four tiles is seen. This is repeated, in some places, to the fifth row of tiles, and probably, when the parapet was complete, a sixth existed. The mortar employed to bind the septaria together, is not, in every place, as hard as that between the rows of tile, neither does it always contain pounded tile, but often is very sandy and friable. But nothing can be harder than the mortar of the tile courses; and as a rule, the tile splits rather than lose its tenacious concrete.

The brown grey courses of septaria, covered with dark lichens, and swarming with vegetation in the interstices, is relieved by the opaque and brilliant dark red of the tile courses, and when the foliage is richly green, or sparkling from the effects of intense sunlight upon the damp leaves, the beauty of the combination of colours is very great, and has even excited the admiration, and afforded the subject, for the pencil of the greatest of modern colourists.

Where the face of the Wall is very ruinous, and where the tiles have been removed, it is found that the centre of the structure is tileless, and consists of rubble, into whose composition large, perfect, or small irregular and fragmentary septaria, enter. So, in places where the Wall has been cut through, the deficiency of tiles in the centre is observable; but, nevertheless, there is some order in the rubble structure. In some places, fractured tiles, with red tile mortar, are built in, they are, evidently, portions of a ruined wall or building; in others, the herring-bone order of masonry prevails.

At the gates, the tile courses are either continued through the Wall, or else they usurp the position of the septaria as well; in fact, wherever additional strength was required, tile work was employed to assist the weaker septaria.





The septaria were either cut to present a plane face, or in the central rubble work were laid in all forms. The following are measurements of septaria, as taken from the face of the Wall :—

*Inches.*

*Length of septaria—face,	19, 6½, 6, 8, 10, 11, 7, 9, 22.
Height . . . . .	6, 6, 4, 5, 5, 19, 6, 6, 6.
Length of septaria—face,	11, 11, 9, 6, 6.
Height . . . . .	5, 5, 5, 5, 5.

The height of the courses of tile may be stated as follows, from several examinations :—

1 — 11 inches.	6 — 10 inches.
2 — 10        "	7 — 9         "
3 — 10        "	8 — 10        "
4 — 9         "	9 — 9         "
5 — 11        "	10 — 10       "

Some fragments of calcareous tufa are built up with the septaria, but the geologist recognizes them as a late formation and not as belonging to volcanic rocks.

Pieces of petrified wood, and very small portions of rounded granite, flint, and lias, also are found in the bastion overlooking the Balkan Hill, but all these substances are constantly thrown up on the coast of the part of Essex whence the septaria are derived.

The septaria are hardly worthy of the name of stone, being nothing but concreted London clay, the concretion being laminated concentrically. Thus, a large lump in the clay cliff is rolled down to the beach, and if it be cut in half, the concentric outlines of its concreted layers will be seen; there is a disposition in the mass to split in the direction of its laminæ, and at right angles to these; but by careful cutting, a most durable face may be established. Cement stone is the modern name, and they are dredged up off the clay banks near the Orwell; but the septaria, em-

\* The varying size of the septaria depended upon the skill of those who cut them, and that of the tile upon the shrinking from the size of the original moulds during their long-continued drying process. 12 inches, or 18 inches in length, and 2 inches in thickness, of clay, would, in process of time, before burning, lose, by the condensation of the clay consequent upon its loss of moisture.

ployed for building, were not dredged, but dug out of the cliff, for the salt water destroys the solidity of the stone.

There are no descriptions of the architecture of the gates, and no faithful drawing of any one mentioned by Morant; but the indefatigable Roach Smith, gave a notice to the antiquarian world, some years ago, of an entrance into the town which had been overlooked, even by our accurate historian.\* Another was discovered, during some excavations in 1852, by Mr. Lewis, of Colchester, and there are traces of a third, between the so-called Rye-gate, and that last discovered. These will be noticed in the details of the Wall.

The Walls are nearly on a line with the principal divisions of the compass; thus the Wall nearest the river Colne, looks north and south, and is built on a line drawn east and west; the South Wall is also nearly east and west in its direction, but its eastern end is very much curved ere it meets the Eastern Wall, which joins it, on the east, to the Northern Wall. The curve of connexion between the Northern and the Eastern Walls, is not so decided as that between the Southern and Eastern.

The direction of the Eastern Wall is nearly as possible north and south, so is that of the Western. But there is a slight divergence in the Eastern, which consequently adds some 30 yards in length, to the Southern Wall. The Northern Wall is, according to my measurement, exactly 1,000 yards in length, calculating from the centre of the curve which joins it to the Western Wall, to the centre of that which joins it to the Eastern.

The Eastern Wall is  $516\frac{2}{3}$  yards long, calculating from the centre of the curves; it forms an obtuse angle with the Northern, and a slightly acute curve with the Southern Wall, consequently the termination of the Southern Wall is more to the east, than that of the Northern.

The South Wall is  $1,033\frac{1}{3}$  yards long, and the West Wall is 550 yards long.

On account of the West Wall being more than 30 yards longer than the Eastern, and of the South Wall being as many yards longer than the Northern, the shape of the space enclosed by the Walls, is a rather irregular parallelogram.

\* Morant lived close to the Balkan-gate, yet did not describe it.



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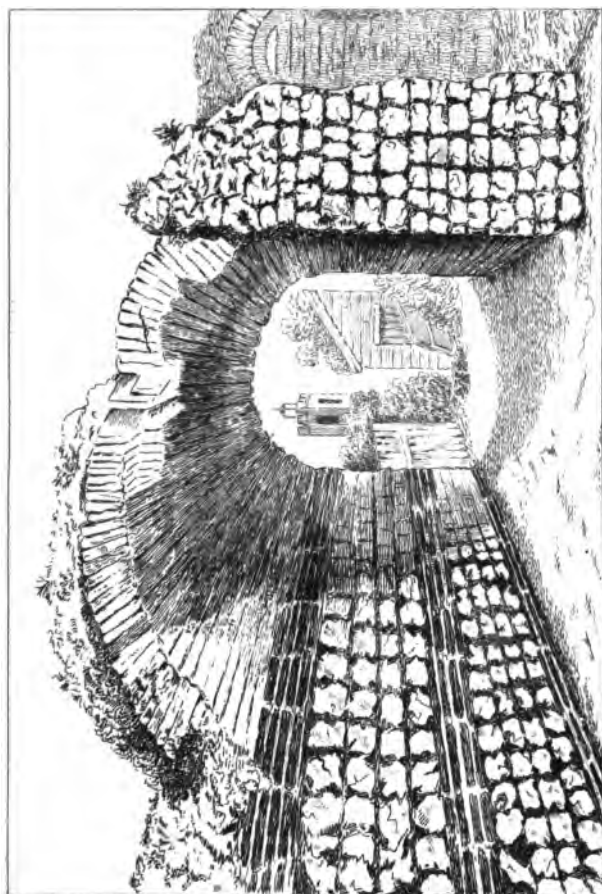
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Pl. 4.



The river Colne and its meadows, are to the north of the Northern Wall the river approaching to about a hundred yards in the middle of the Wall, but diverging at either end; the base of this part of the Town Wall, is generally speaking, elevated but a little above the level of the meadows, for the ground undulates but slightly, and it is for the most part placed just where the abrupt northern inclination of the soil, within the town, terminates in the flat meadows, which, in former times, were marshy and frequently overflooded.

There is a deepish fosse at the eastern end of the North Wall, but it is not a remnant of the Roman period.

The Eastern Wall is also parallel with the Colne, which is considerably removed from it; its base runs midway along the incline of the East Hill of Colchester, and at its southern termination, overlooks a deep and wide natural fosse.

The South Wall is not protected by the river, but the level of the soil at its base, is continued downwards to form a very considerable valley, thanks to the natural undulation of the ground. The surface of the ground, upon which the South Wall is built, is very much higher, than the level of the North Wall; it results, that the West and East Walls of the town, are built, for the most part, down the incline of a hill.

A careful survey of the Walls, enables me to assert that the original plan of their formation was strictly followed out, and that the irregularity in their line and length, was a part of the scheme of rendering all the irregularities of the ground available for the purposes of fortification. The Roman work remains, to a great extent, to this day; most of the subsequent reparations of Saxon and Norman, appear to have crumbled away, and late excavations, made to discover the inner facing of the Wall, exposed it looking as neat and as strong as if it had been built during this century.

In some parts, the Wall was built to face a rampart of earth, which was composed of the earth of the fosse beyond and the soil of the foundation of the Wall; a parapet was added when the Wall had reached the top of the rampart; but in other parts the Wall stood alone, and without rampart. This last condition was not frequent, but traces of it exist in the North Wall; the former is nearly universal, and



as a rule, the level of the soil within the Walls, is more than 10 feet higher than that immediately without the Walls.

The whole surface of Colchester, *i.e.*, within the Walls, is so encumbered with the *supellex Romana*, that it is difficult to discover the original elevation which it had with respect to the Wall, but by placing the level as that of the tessellated pavements found near the Walls, the difficulty may be removed.

There are the remains of a large tessellated pavement at each of the angles of the space enclosed by the Walls, they are useful guides to the level of the Roman *viæ*, and when they formed part of the mansions of the colonists, must have contributed to awaken Italian memories.

If the antiquary expect to find the Walls of Colchester, and their gates and approaches, traced according to the rules of *castrametation*, given by Polybius, or by Hyginus, he will be disappointed, for there are many startling deviations from the received notions. It may be suggested, however, that in towns, the rules of *castrametation* were not carried out.

Thus, the imperial camp, the camp described by Hyginus, was oblong in its outline, the two longer sides being at equal distances from the "*Groma*," standing in the middle of the principal street; the general rule was, for the length to exceed the breadth by one-third, and the *Prætorian* and *Decuman* gates, and the two *Portæ Principales*, were at stated distances in the Walls. The *Prætorian* gate was at the end of the street which led from the centre of the *via principalis*—it was in the centre of one of the shorter Walls; whilst the *Decuman* gate was opposite, and in the centre of the other shorter Wall. The *Portæ Principales* were in the longer Walls, were opposite to each other, and not quite central. In large camps, a street, the *via Quintana*, which ran parallel with the principal street, but near the *Decuman* gate end, had gates. The *via Prætoriana* did not traverse the camp, but stopped short at the "*Groma*;" and the *via Quintana* was not cut at right angles by any central street.

But in Colchester, the long Walls are nearly twice the length of the short; the gates in the shorter Walls, are not central, and but two are placed in any position by which they can be recognized as the ends of *viæ* in the longer Walls.

The great Balkan-gate led to the Roman road, which, after traversing the cemeteries, proceeded to London; but the opposite gate, East-gate, now not in existence, but represented by the road on East Hill, appears, in the Roman time, not to have led anywhere by a main or great road, for the antiquary searches, in vain, for Roman relics along the course such road must have taken. Reasonable doubts have been expressed, as to the propriety of placing the entrance of the road from Venta Icenorum, at East Hill; its most direct line would have been to cross the river, opposite the gate lately discovered at the Holly-trees. Which gate was nearest the enemy? Was the Balkan or East-gate the Prætorian? There is quite as much to be said for either, and the candid enquirer, who will study the plan of the camp of Hyginus, and compare it with the plan of the Walls and gates of Colchester, will, perhaps, own that Head-gate and North Hill-gate ought to be the gates of the Via Quintana, and St. Botolph's-gate the Porta Principalis dext.; but further considerations will cause him to abandon the placing the principal gate elsewhere than at Head-gate, and to throw Hyginus and his notions to the winds.

The force of circumstances, rather than the principles of scientific engineering, influenced the shape of the Walls, and the choice of the entrances.

There is this important fact to be considered, that the entrance of the Roman road, on the West at the Balkan fort, was oblique and not at right angles with the West Wall, but at an acute angle with the southern portion of the West Wall; this entrance is surrounded by remains of British antiquities; and, in a military sense, commands the deep and precipitous hill which leads down to the river. There was every reason for placing the West Wall in its present position, and for continuing the portion north of the gate down to the river. The river and the marsh assisted in the completion of the strong position. There was no reason why the Wall to the south of the gate should be more extended than it was, for, had it been increased in length, it would have been placed either in the bottom of a shallow valley, or else half-way up the incline, which looks upon Colchester from the south.

The South Wall was carried farther to the east, than was correct in theory, to reach well down the eastern slope of

the surface of that part of the town; and the bend in the river determined the length of the North Wall. The more the ground is studied, the more credit must be given to the sagacity of the engineers, who planned the line of defence; any shortening or curtailment of the Walls would have given advantages to an attacking party.



#### DETAILS.

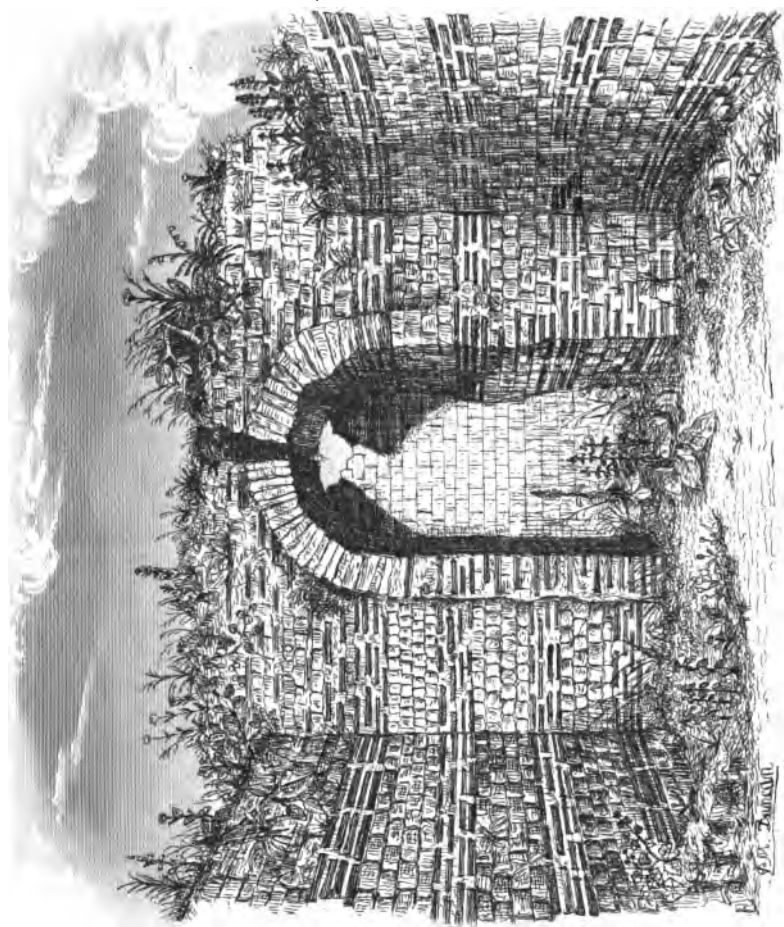
Morant has not left any detailed description of the Walls of Colchester; but, fortunately, they are so accessible, and the antiquary is so kindly received by the proprietors of the garden land, against which the old structure rests, that any one, with a measuring rod, tape, and note book, can complete the survey in a day. My measurements, I believe to be as correct as was possible for me to make them, under every facility, except the possession of the technical knowledge of a land surveyor. The survey commenced in the garden of the Rectory of St. Mary-at-the-Walls, close to the house, and was carried along the circuit of the Walls, until the starting point was attained. In the following description of the results of the survey, it is almost impossible to avoid associating names of possessors with the name of the property upon which the Wall rests; but the most familiar and most commonly-received names have been given, in order to assist the survey of any future labourer.

1.—The Rectory of St. Mary-at-the-Walls, is close to the West Wall; and, on approaching the house, the low parapet of grey septaria, with a covering of grass, at once strikes the eye. The measurement determined that the parapet was five feet six inches in height, and five feet thick; but, on looking over, the surface without the Wall is seen many feet below the feet of the surveyor. By dropping the tape over the parapet,  $16\frac{1}{2}$  feet were measured, ere it reached the ground; so that, any one looking from without, towards the Wall, would see  $16\frac{1}{2}$  feet of that structure. In fact, the surface of the soil within the town, is, for many score of yards,



[illegible]

the 1990s, the number of people in the world who are undernourished has declined from 760 million to 600 million. The number of people who are malnourished has declined from 1.1 billion to 800 million. The number of people who are obese has increased from 100 million to 300 million. The number of people who are overweight has increased from 100 million to 300 million. The number of people who are obese and overweight has increased from 100 million to 300 million. The number of people who are obese and overweight has increased from 100 million to 300 million.



Pl. 3.



eleven feet higher than the surface of the road and fields outside. There is, then, a perpendicular cliff of eleven feet, faced by the Wall, and this is continued upwards for  $5\frac{1}{2}$  feet more, as a parapet. The external face of the Wall is very ragged here, and there is irregular herring-bone work in flint and septaria; the courses of septaria are also irregular, from frequent repair.

2.—Was taken 30 yards north of 1. The total height of the Wall is 17 feet; of these, 12 face the rampart or cliff, the 5 others are parapet, 5 feet is the thickness. This part of the Wall looks out upon a dead level of many yards, and then the ground undulates slightly. Within, the Rectory field is flat, but evinces a disposition to incline towards the north, where once, ere the reservoir was formed, a considerable descent took place.

3.—The measurement was taken at the head of the reservoir. The Wall formed, at this spot, part of the guard-house to the Balkan-gate. There is a gate pierced in it, which led from the town into the guard-house; at present, it is blocked up by the masonry of the reservoir, and its key-bricks are in a very shattered condition. (*See plate No. 3.*) The Wall is 15 feet high, both within and without; there is no rampart to face, and the reservoir but blocks up, in part, the street which led to the east. The thickness of the Wall is no less than 10 feet. Forming, as has been just mentioned, a part of the guard-house, the Wall, when in its original condition, was much higher than it is now. The guard-house, or chamber, is without the Wall, a portion of this forming its eastern boundary; the other boundaries being a curved Wall, attached by one extremity to the Town Wall, and at the other to a straight Wall, which, passing at right angles from the Town Wall, meets the end of the curved Wall. The shape of the guard-chamber is then peculiar—straight on the north and east, curved in the rest. Its roof is destroyed, but the masonry of its Walls is very perfect, although an opening has been made in the North Wall. The etching (No. 3.) is of the interior, looking towards the arch in the Town Wall; the Wall to the right is slightly curved, that to the left is straight. The four rows of tile, succeeded by four rows of septaria, are still preserved. This chamber was described, some years ago, by Mr. Roach Smith.

The Wall suddenly ceases to the south of the guard-chamber, and an arched passage issues from it. (*See plate No. 4.*) The magnificence of the tilework of this great Roman arch cannot be described by my feeble pencil, but the inch-thick mortar, and the immense tiles, so cleverly turned over an arch of boards, in the first instance, are well worthy of the attention of any antiquary. The marks of the original boarding upon the mortar still exist.

This arched passage was the way for foot passengers, and the sides of the archway will be observed to incline; it formed part of the great



Western-gate; it is separated on the south, from the guard-chamber by a party Wall, and on the north is a Wall which looked into the way for carriages. The guard-house was illuminated by the door alone, and the arched passage had no communication, either with the guard-house or with the carriage way.

The level of the floor of the passage, is many feet higher than that of the present floor of the guard-house, and there was no connexion between the two structures. The circular Wall of the guard-house acted as a bastion, and when the bastion on the north side of the Balkan-gate was in its perfect state, the two constituted the Balkan Fort. The carriage way is separated from the arched passage to its south by a Wall, 15 feet in height, and the perfect condition of this Wall is very remarkable. The arch over the carriage way has, long since, been thrown down, and its north wall simply crops out, here and there, to indicate its former position.

The plan \* will give a better idea of the relative dimensions of this gate, and of the size of the bastion overlooking the Balkan Hill. (*See plate 5.*)

A public-house occupies the interior of the bastion, to the north of the gate, and with the exception of the facts, that the bastion is outside the Wall, and is of great bulk, nothing can be said or expected to be discovered until some lucky accident occurs. There are traces of thick walls under the garden of this house, and the inner face of the bastion is seen to resemble that of the curved wall of the guard-house.

There is every reason for believing, that the portions of the ground-plan shaded once existed, and that in this great gate there was a central carriage road arched, on either side of it a vaulted way for foot passengers, and on the south side a guard-house, whilst on the north there was, in addition to a guard-room, a square chamber for superior accommodation. The name Balkan (usually spelt Balcerne or Balkern) Fort, so long borne by this Roman structure, is Saxon, and not British, as has been freely asserted. Balkan means a high ridge, or an elevation dominating a valley. I beg to leave the other name, Kolkings Castle, to its fate, it being as absurd as that of King Coel's pump in the High-street of Colchester, or of King Coel's kitchen, a gravel-pit, two and a-half miles on the London road. The following are the measurements, &c. :—

GUARD-ROOM. (*See plan in plate 5.*)

*Measurements, &c.*

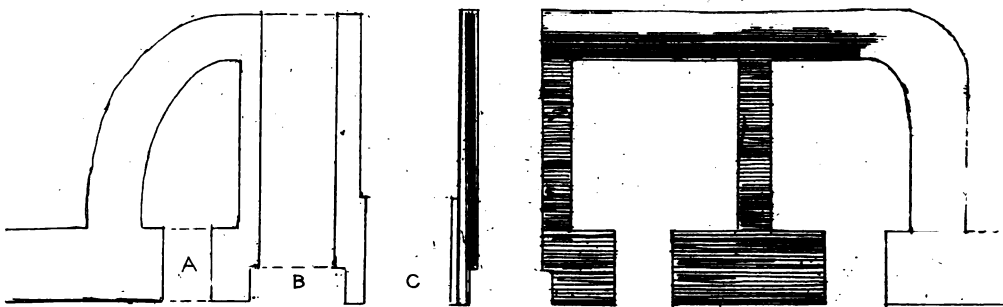
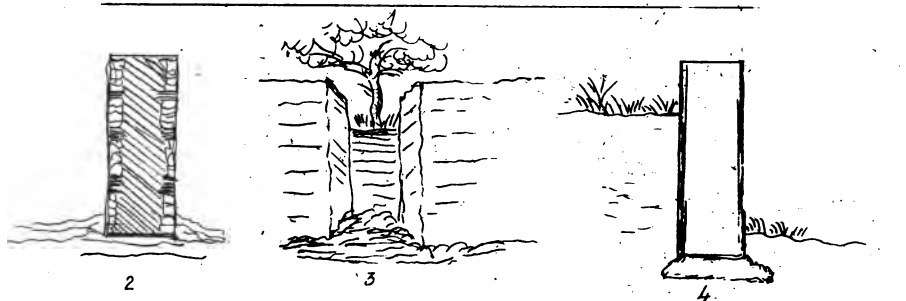
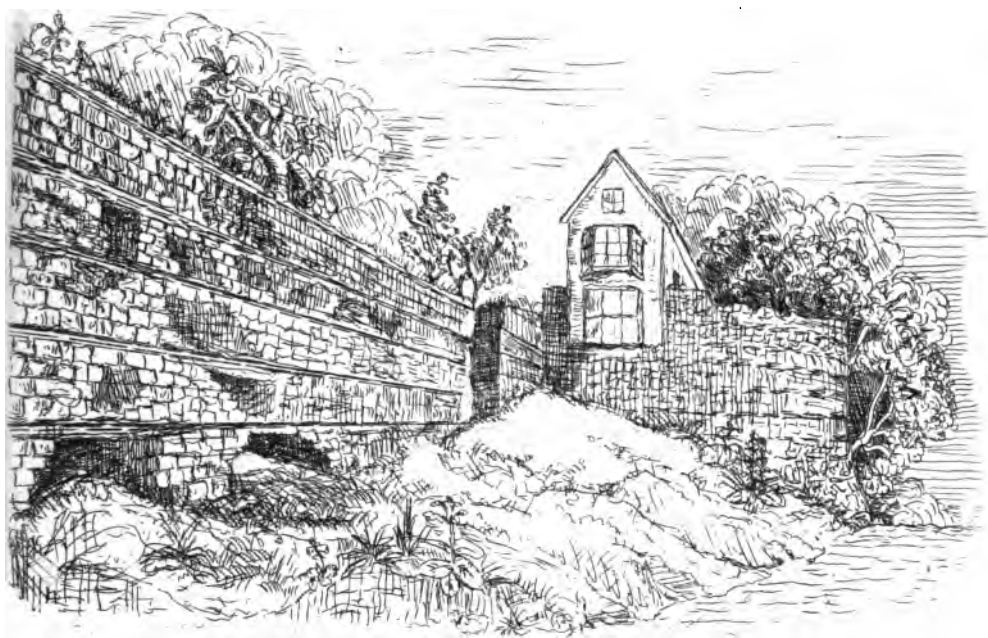
Arch (a) leading into the chamber, whose South Wall is curvilinear in its outline, but whose North and East Walls are straight. (*Guard room : see etching 3.*)

Length of East Wall, including archway..	..	13 feet.
Length of North Wall .. .. .	..	21 feet.

\* See description of plates.







RMD.



Length of line drawn from the south-east to the north-west corner .. .. .	25 feet.
Length of line drawn from centre of the last-mentioned line to the curved wall .. .. .	6 feet 6 inches.
Length of line drawn from same spot to the north-eastern corner .. .. .	12 feet 2 inches.

Walls of guard-room composed of tile, mortar and septaria.

There are visible (take North Walls as the example)—

4 courses of tile, each course of 4 rows.

4 „ septaria „ „ „

The septaria are large, cut into long faces, and separated by the bonding courses of tiles. Thus we reckon four rows of septaria, then four rows of tile, then four rows of septaria, and other tiles, and so on. The mortar is thick, and is composed of pounded tile, lime, pebbles and a little sand.

The septaria course is  $22\frac{1}{2}$  inches high, but the height of the tile course varies from the different thicknesses of the tiles.

The following is a measurement of ten tiles, taken as their edges face the spectator in the courses in the Wall :—

1	..	..	15	inches	..	..	$1\frac{3}{4}$	inches thick.
2	..	..	10	„	..	..	$1\frac{3}{4}$	„
3	..	..	10	„	..	..	2	„
4	..	..	10	„	..	..	$1\frac{1}{2}$	„
5	..	..	6	„	..	..	$1\frac{1}{8}$	„
6	..	..	10	„	..	..	$1\frac{3}{4}$	„
7	..	..	$8\frac{1}{2}$	„	..	..	$1\frac{1}{2}$	„
8	..	..	11	„	..	..	$1\frac{1}{2}$	„
9	..	..	17	„	..	..	$1\frac{1}{2}$	„
10	..	..	7	„	..	..	$1\frac{3}{4}$	„

The joist-holes are 4 feet 10 inches above the present floor. The depth will be ascertained at a future time.

#### ARCH (a).

Crown of arch, deep .. .. .	3 feet.
And composed of .. .. .	52 tiles.
Height of archway from line of joist-holes to top of arch crown .. .. .	10 feet.
Height of joist-holes above foundation .. .. .	4 feet 10 inches.
Width of archway .. .. .	5 feet 8 „
Length of archway .. .. .	9 feet.
This leads into the guard-room from the town.	

	<i>Length.</i>	<i>Width.</i>	<i>Thickness.</i>
Dimensions of tiles at the sides and in the arch .. ..	16 inches ..	11 inches ..	2 inches.
	14½ inches ..	10 inches ..	2 inches.
	14 inches ..	10 inches ..	1½ inches.
	15 inches ..	9 inches ..	2½ inches.
	16 inches ..	11 inches ..	1¾ inches.

The mortar contains pounded tile, and is very thick.

(*See etching No. 3.*)

#### ARCH OF WAY FOR FOOT PASSENGERS.

Crown of arch, deep .. ..	3 feet.
Height of archway, not including crown .. ..	9 feet 6 inches.
Width .. ..	7 feet 6 inches.
Length, probable .. ..	37 feet.

(*See etching No. 4 and description of plates.*)

#### MAIN WAY FOR CARRIAGES.

Width of way .. ..	11 feet.
Length .. ..	same as archway for foot passengers.

The other arches, marked in the ground-plan, are problematical.

The late severe winter has totally altered the general aspect of the guard-room; it is now as ruinous as it formerly was well preserved.

The cavities for the bar, which closed the door leading from the Guard Room into the town, still exist; and the joist-holes, which held the beams of the Guard Room floor, are to be seen; but the covering of the structure has long since disappeared.

The two bastion-like ends, and the arched ways of this Grand Gate, must have contributed, in the olden time, to its strength as a military position, and to its elegance as a piece of architecture; the whole building, standing as it does, in front of the line of the Wall, is unequalled by any remains in England; and it is by no means to the credit of Colchester, that it should be gradually wasting away. The Roman road to Stanway, Chelmsford and London, issued from this Gate, and passed obliquely south-west, being within bow shot of the Wall for many yards.

Any traveller approaching the town, on this side, in the days of the Empire, would have seen the Cemeteries on either side, and a few villas, but before him would rise the grey Wall, and Great Gate of the town. Approaching closely, the carriage way would have been seen, with an arched way, on either side, for foot passengers; the high tower-like bastion, overlooking the Balkan Hill, would have excited admiration, and the guard would speedily issue from the smaller bastion on the right. Passing through the arched way, the traveller would have seen the street leading into the town before him, and on either side the level









Pl. 6.



of the soil would be observed to rise to form the rampart, faced by the Wall and surmounted by a high parapet.

The fourth measurement was taken immediately to the north of the Balkan Bastion. The Wall is covered on the outside, to, at least, one-half of its height, by a mound of earth of modern date. Eleven feet and a half is the actual height of what now remains of the Wall, and seven feet and a half of it exist in measurement within the Wall. The rampart is wanting at this spot, but a little to the north it is again found, the soil having been cleared from the inner face of the Wall to make the slope from the rampart to the street, and the space behind the Gates. (The etching of this part of the Wall is on the plate, with the plan of the Balkan entrance.) (5.)

The Balkan road is at the base of the Wall, and the soil, further to the west, ascends rapidly for a certain distance; a kind of fosse results, which is semi-artificial.

Some years ago, a portion of the Wall fell into the Balkan Lane, and left the rampart bare.

5.—Of the ruined part of the fortification, the wall is wanting to its base; a brick-wall, of a foot or two thick, keeps the rampart from falling into the lane. The rampart is here twenty-one feet high; consequently, the town level is twenty-one feet higher than the country level.

The sixth measurement was taken at the end of the garden of the Provident Society; the parapet has been destroyed; the rampart and its facing alone remain, and are fifteen feet high.

The Balkan Lane, with the ascending ground to the west, continue to form a fosse. Measurements 7 and 8 were taken in Mr. Hall's garden. In one, the parapet is four, in the other, five feet high; the rampart, in the one, is fourteen, in the other, twelve feet in height. The entire measurement of the Wall is, in one, eighteen, and in the other seventeen feet.

In both these situations, there is a mass of earth piled up against the Wall; it would appear as if the Balkan Hill had been lowered, and the earth thrown from the road right and left. Doubtlessly, the base of the Wall is many feet out of sight. (*See etching of this part of the Wall, plate No. 6.*)

In Mr. Bowler's garden and ground, near the curve of the Wall, I took three measurements. No. 9, proved the rampart and its facing to have been ten and a half feet high; the parapet has disappeared, with the exception of two feet.

The West Wall curves gradually into the north, and approaches the river.

No 10 (North Wall).—The parapet has been ruined, but the Wall facing the rampart still exists; its height is 17-feet.

No. 11.—The Wall facing the rampart is 15 feet in height.

The curve of the Wall is at the bottom of the hill, which is commanded by the Balkan Bastion, and the base is on a level with the river's banks; no fosse, of any depth, could have been made at this spot, owing to the peculiar character of the soil; and the lane, which now runs up at the base of the West Wall, has had so many alterations from the engineer, that its original level and relation with the Wall cannot be determined. The sandy soil has been excavated in many places from beneath the Wall, and the piled-up earth, which gives an artificial altitude to the Wall, and a corresponding depth to the fosse-like lane, hardly serves to put off the day when the ruin of this interesting structure will be complete.

Passing along the North Wall, from the curve at its commencement, a street is found perforating its course. No remnant of gate or covered way exist, and the architecture of the North-gate has had no delineator. This is the case with all the gates, except the Balkan.

On the eastern side of the street, the fragments of the Wall crop out; and, still further on, some houses are built, just without the old Wall, so that their front windows look on to the curtain. There is no parapet left.

The Wall is traced, with great difficulty, as far as the eastern side of the street leading to Middle Mill; this street led to the Rye or River-gate, of which all vestiges are lost. It is tolerably evident that the Rye-gate was not of Roman origin, but that its formation was determined, in Saxon or Norman times, by the necessity of providing a fall of water for milling purposes, above the ford which led through the river, from the Roman River-gate, towards the north. The Roman-gate is still to be made out, being situate at the base of the hill leading upwards to the Castle; a side Wall exists, in a ruinous state, on the west side of the gate, and the Wall is wanting for many feet. Standing close to the low side Wall, and looking riverwards, the position of the Roman way is seen, by the track of the lane, on the further side of the river, which, even now, comes down to the water brink.

Three feet six inches of the side Wall remains of length, and three feet of thickness, and there is no trace of the Wall for 23 feet; this space is enough for a gate, and to spare. The surface of the ground, around the interior of the gate, is a mass of broken tile; and some excavation may, perhaps, reveal much that is interesting.

Between the east side of the street, leading to the Middle Mill and the Roman-gate, the path, on the rampart, is narrowed by a fence; and in the cellar of the house to which this is attached, an arch was discovered by Mr. Wire, and described by him. This arch appears to have been part of a drain, but is so blended with common brick-work as to leave little room for speculation.

A measurement (No. 12), close to this spot, gave eight feet of very dilapidated Wall, two feet of parapet, and six of rampart.

A most interesting portion of the Wall is that at the bottom of Sheep's-head Meadow, the northern base of the Castle Hill, for it is very evident that the Wall stood up high and towering, without a rampart, in the Roman times. Years afterwards a rampart arose, and the Wall was repaired, and probably heightened; this rampart was not of earth thrown up by military foresight, but consisted of the ruins of buildings of burned and charred wood, tile, and stone-work, and of all kinds of Roman domestic utensils. The whole of the Wall, from the Roman River-gate, just described, to the end of the meadow on the east, has had its inner face cleared of its covering earth, within the last three years. This grand excavation presented the spectacle of the ruins of a bye-gone race, trodden over for centuries, by the successors of those who perpetrated the mischief. For no less than seven feet below the surface, did the supellex Romana extend, and yet nothing was whole; fire and violence had charred and ruined everything. The most interesting relics, were large pieces of Purbeck marble, thin and polished on one surface, hundreds of pieces of Samian ware, and a long row of red tesserae. So continuous was the layer of red tesserae, that it formed the base, upon which all the ruins rested, and it gave the impression that the way, by the side of the Wall, was formerly paved. The inner facing of this part of the Wall, where it had been protected by the heaped-up remains, is very perfect, and a casual observer might take it to be a modern construction; unfortunately the outer facing has disappeared, and the Wall is most ruinous. The courses of four rows of septaria, and of four rows of tile, are most regular, on the inside of the Wall, and follow the rise and fall of the level of the foundation. The mortar is mixed with pounded tile, and the size of the septaria is very great; the facing of several is no less than twenty inches in length, and six in height. Above these regular courses, the sandy mortar and irregular tile-work of an after age becomes very evident. Putlog holes exist, ten inches long and eight inches high; they were, most probably, the joist-holes for a platform, for the soldiers parading the Wall. Upright pieces of tile are found, also, between the septaria, and some of these are, evidently, the remains of former buildings, the red mortar being still adherent to them. The outside of the Wall is very ruinous; just here; its foundation is on the clay of the river meadow, and has about twelve feet of its structure remaining. The measurement of the inner facing of the Wall, cannot be correctly estimated, but it is reasonable to place it at twelve feet (measurement 13).

A huge solid tower foundation was destroyed during the formation of a new path along the inner face of this part of the Wall. The tower was solid as high as it could be traced—viz., twelve feet, and it extended thirteen feet into the town, and was joined on to nineteen feet two inches of the inner face of the Wall. It did not project without the Wall, and the layers of tile did not pass through it, but faced its sides.

Measurement 14, close to the tower, makes the Wall twelve feet in height, without any rampart. The hill rises rapidly to the south of this part of the Wall, and is dominated by the Castle; but between the Keep (the present so-called Castle) and the Wall, there are a mound—the boundary of the inner ballium, a deep fosse, and a ridge, on the crest of the hill north of the modern Wall—the position of the Wall of the outer ballium. The hill between this outer ballium and the Town Wall, formed a third space.

Fifteenth measurement, at the bottom of the Holly Trees grounds, gives thirteen feet of rampart, faced by a very ruinous wall, in whose tile coursing there is some irregularity, the lower course consisting of one row, instead of four rows, of tile; moreover, the septaria course is of three instead of four rows. Much red mortar is built into the rubble here, and surrounded by sandy and white cement. At about twenty-four feet from the base of the Wall, there is a fosse, which is of later date than the Roman period.

Sixteenth measurement, in the Botanic Garden. Ramparts and facing twelve feet high; parapet, three feet high, and six feet thick.

Between the positions of these two last measurements, and a little to the west of the modern Wall, which divides the Holly Trees from the Botanic Garden, not only was a filled-up gateway discovered in the Wall, but a long drain was found running under the gateway, and terminating without the Wall, in a ruined condition, but running up in a serpentine course to within a few yards of the Holly Trees garden. It ended by entering a chamber, floored with concrete, whose double walls were separated by clay rammed in, and into whose cavity a little stream of pure water bubbled up. The drain, or cloaca, was not a sewer, but simply carried off the surplus water from this bath chamber; portions of it were arched, but for the most part, it consisted of a tiled floor, of side walls of tile, and the top was covered with flat tile, and, when arched, with an arched series of tiles. The arched portions were, for the most part, perfect, and where the drain passed under the gateway, at a distance of three feet below the level of the road, the arch was very perfect. Owing to the great kindness of the Rev. J. Round, every facility was given to the Society in its excavations; and we were very fortunate in the kind offices of Mr. Lewis, the Town Surveyor, who directed the works and drew plans. The whole drain was filled with fragments of tile, Samian ware, bronze fragments, iron rings, oyster shells, open (only one perfect was found), fragments of fictile ware, of all kinds; slabs of Purbeck marble, and one piece of white marble, with the letters H. I., and, probably, a part of a C. Mr. Bolton Smith has preserved, for the benefit of the Museum, all the objects deserving of notice; the coins discovered, have already been enumerated. The following are the measurements of the drain; a more perfect description

of which will be prepared for the next volume of these transactions:—

Length of drain, without the Wall..	..	56 feet—fall of 18 inches.
„ Under gateway ..	..	21 feet.
„ Within the Wall ..	..	250 feet—fall of 3 feet.

A portion was covered in originally with flat tiles, now broken and fallen in; the rest was arched.

Floor, of drain tiles, set in cement, 1 ft. 9 in. internal measurement.

Side walls, tile (in courses of 18 and 17), 3 feet 9 inches high.

So that the water flowed down a drain 1 foot 9 inches broad, and 3 feet 9 inches high; and, where there was an arch, it was made of twenty courses of tile.\*

The gateway over the drain was discovered by Mr. Lewis, and excavations proved that its massive arch had been thrown down, burned, and buried in the wreck of the side towers. The opening of the gateway had been filled up, and the evidence of a furious fray consigned to oblivion for centuries. The tile courses are continued round the gateway, which was 11 feet wide; the marks of the doors were plain, and the antiquities, bones, and fragmentary tiles, were very numerous. No vestige of the road, within or without the Wall, exists, which formerly passed through this now ruined archway.

Measurements 17 and 18 were taken near the end of the North Wall they prove the present state of the Wall to possess eleven and six feet of rampart respectively; the parapet in both, is six feet high and six feet thick.

#### EASTERN WALL.

Measurement 19, in Botanic Garden. Rampart and the Wall facing it are thirteen feet high; parapet, six feet high and six feet thick.

In the grounds of Mr. J. Savill, there are the remains of a tower, of the same kind as that already mentioned in the North Wall. This second massive foundation extends six feet into the town, allowing the thickness of the Wall to be six feet. The rubble, in the centre of this part of the Wall, presents numerous circular holes and cylindrical cavities, evidently once occupied by wooden beams. There is very little original structure in this part of the Wall, and it looks very Norman.

East-gate has disappeared; the Wall will be found forming the eastern boundary of St. James's churchyard, and a little arch of a drain is seen close to the roadside.

\* The measurements, plans, antiquities, and drawings of the drain, made under my superintendence, are of too important a character to be described in this cursory manner; but the future volumes will, doubtlessly, contain them.



The three next sections are from Mr. George Round's garden and field; the first is taken from the eastern, the others from the southern line of Wall. Throughout the whole of the defences included in Mr. Round's possession, the Wall has undergone, at various periods, very substantial repairs; a common brick-and-mortar modern Wall replaces the old Wall in many places, and surmounts and acts as a parapet in others. This modern Wall does not always keep the line of the old Wall, but occasionally crosses it obliquely. The bastions peculiarize this part of the Wall; they are semi-circular projections of the rampart and its facing, they are not quite perpendicular. There is an excellent natural fosse here, in the form of the low grounds, on the other side of Moor Lane.

Measurement 20 proved the rampart and facing to be 21 feet high. The parapet is new.

Measurement 21 was of a bastion, the total height is 21 feet; of these, 19 pertain to the rampart, the rest are modern. Close *under* this part of the Wall, a Roman villa's foundations were traced—a remnant of the first colony.

No satisfactory section can be made in the South Wall, from St. Botolph's to the cottage garden in St. Mary's; houses are built upon or before the Wall, or it is totally wanting. But Mr. Wire has kindly informed me of the existence of a drain-exit, a little to the east of Schere-gate. It is formed of tile, the side walls consisting of vertical tiles, and the arch of two rows of tile. Width, two feet six inches; height of crown, three feet.

No. 22, is in St. Mary's Churchyard, and looks over into Crouch Street, and the low gardens beyond. The parapet is wanting, and the rampart and the Wall are nineteen feet high.

No. 23, opposite the western entrance of St. Mary's Church. The parapet is six feet high and six feet thick; the rampart and facing eleven feet high. (*Plate No. 1.*)

There are the evidences of an arch at St. Mary's postern, and of a tower.

These details, however uninteresting they may be, give, when carefully looked over, a tolerable idea of the plan upon which the Wall, rampart and fosse, were constructed.

It appears that the parapet reaches in one place, owing to its being close to the corner of the guard-house to the north of the entrance, to 7 feet; there is but a 4-foot rampart.

The usual height is 6 feet, and upon this we must place a crenalated top, as at Pompeii.

This height is unusual in Roman parapets, but Colchester was fortified, not to withstand the attacks of an enemy

aware of all the tactics of sieges, but of an enemy whose science was simply that of a desperate and ill-organized onslaught. The rampart varies considerably in height; it is greatest at the south-eastern angle, and at one spot, near the south-western angle, the greatest heights are 21 and 19 feet. The average height is 14 feet. The Wall, which faces or lines the rampart, and whose continuation above, forms the parapet, has its foundation some feet below its visible base.

The discovery of the ruins beneath the South Wall, and the fact, that pieces of tile, with red mortar attached to them, are found in the central rubble work, infer that buildings were in existence prior to the erection of the Wall. The Wall is rapidly falling into decay, and, ere many years elapse, this grand monument will cease to exist, unless the proprietors imitate the excellent example of the gentleman, who has repaired the north-western curve. A few stringent rules against the destruction of the foundation, and some little expense, would preserve the old bulwark; and it is not likely that the rising generation, who have such opportunities for improvement and mental cultivation, will let the Wall crumble before their eyes.



## DESCRIPTION OF ETCHINGS, &c.

[The author has to apologize for his home-made illustrations, and to thank Mr. E. LADELL, engraver, of Colchester, for *plate No. 4.*]

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1.—St. Mary-at-the-Walls; the tower close to the broken Wall; winter scene; from the lane to the north of Crouch Street.

2.—The inner face of the Wall in the Botanic Garden, North Wall; the projecting foundation is seen, and the dark tunnel below.

3.—The ruined arch leading from the guard-room into the town; it is blocked up by the modern reservoir; the side walls are those of the guard-room.

4.—The archway for foot passengers in the Balkan-gate. The arch is of large tiles, and St. Peter's tower is seen in the distance. The arch to the right is that of the guard-room. (No. 3.)

5.—The Wall on the top of the Balkan Hill. The bastion-looking counterpart of the guard-room, is seen in the back-ground.

A section of the Wall, to show the rampart of earth faced by the Wall, and surmounted by a parapet.

A section in front. The breach in the Wall exposes the rampart of earth. The relative height of the surface within and without the Wall is seen.

A section of that part of the Wall where there is no rampart of earth. The rubble formation in the centre is shown.

A ground plan of the Balkan-gate. (*See Measurement.*) It is nearly correct (1-24th of an inch to a foot is the scale), but, perhaps, had better be used as a diagram. The semi-circular sweep, to the left is the south wall of the guard-room; the position of the arch of the guard-room (*a*) is shown. The archway, for foot passengers, is to the right of this room, and it is separated by a Wall from the carriage road. The structures on the right of the carriage road, in the darkly-shaded portions, are hidden from the eye; but no reasonable doubt exists of their position. There was another foot-way, a large square chamber and a guard-room, with a semi-circular Wall. This curved Wall overlooks the Balkan Lane, and resembles a bastion in its external configuration. The structures to the right of the carriage way are in advance of those on the left, to a slight extent; but, in the small scale of the plan, this is hardly apparent.

6.—The Wall at the bottom of the Balkan Lane.

The wood-cuts represent a coin of Cunobelin, found outside the Wall; a coin of Constantius, and of Carausius, found in the cloaca under the North Wall; and a vase found in the same place.







